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INSTALLATION BULLETIN

NO.: 0425

TO: All Garmin Aviation Service Centers

DATE: 14 February 2005

SUBJECT: Civil Air Patrol (CAP) dual GMA 1347 audio panel installation

PURPOSE

The GMA 1347 maybe used in a dual audio panel configuration.

This Installation Bulletin contains configuration instructions for dual GMA 1347 installation.

DESCRIPTION

The GMA 1347s listed below, may be used in dual audio panel configurations. Once the GMA 1347s are installed, manual system configuration is required before use.

APPROVAL

TSO-C35d

TSO-C50d

AFMS AND PILOT'S GUIDE CONSIDERATIONS

Installation facility shall provide a detailed flight manual supplement concerning the dual audio panel configuration.

PRODUCT AFFECTED

Install only GMA 1347s with MOD 3 marked out on the unit's MOD Status Plate and version 2.07 GMA 1347 operating software or higher.

REFERENCES

G1000 Configuration Manual, Garmin Part Number 190-00303-04.

MODIFICATION INSTRUCTIONS

Interconnect Modification

See CAP/NAV III/G1000 Interconnect, Garmin part number 190-00295-62, for complete interconnect documentation.

Placard

Reversionary mode button on GMA #2 will not be functional. A placard should be placed next to the button stating "DISPLAY BACKUP BUTTON INOP".

GMA Configuration Modification

Start the G1000 system in Configuration Mode:

1. Press and hold the ENT key on the PFD while applying power.
2. Release the ENT key after **INITIALIZING SYSTEM** appears in the upper left corner of the PFD.
3. Power on the MFD in the same manner. It is best to have both displays in configuration mode whenever performing configuration adjustments.
4. Both displays power up in configuration mode and display the System Status page.

NOTE

Refer to the G1000 Configuration Manual for information on Configuration Mode.

Configure GIA #2 on the PFD:

RS-232 / ARINC 429 CONFIG

SELECT UNIT:
GIA2

RS-232		ARINC 429	
CHANNEL	INPUT	ACTION	OUTPUT
CHNL 1	IN1	OFF	ON
CHNL 2	GIA DEBUG	GIA DEBUG	GIA DEBUG
CHNL 3	WX-500	WX-500	WX-500
CHNL 4	OFF	OFF	OFF
CHNL 5	GIA 33 #1 w/ TIS	GTX 33 #1 w/ TIS	GIA 33 #1 w/ TIS
CHNL 6	OFF	OFF	GTS77 #1
CHNL 7	GMA1347 #2	GMA1347 #2	GMA1347 #2
CHNL 8	OFF	OFF	OFF

CHANNEL	SPEED	ACTION	DATA
IN 1	Low	Low	OFF
IN 2	Low	Low	OFF
IN 3	Low	Low	OFF
IN 4	Low	Low	OFF
IN 5	Low	Low	GDC74 #1
IN 6	High	High	GTS77 #1
IN 7	Low	Low	OFF
IN 8	Low	Low	OFF
OUT 1	Low	Low	OFF
OUT 2	Low	Low	OFF
OUT 3	Low	Low	OFF
SDI	Common	Common	

SET>ACTV>ACTV>SET | CLR NV |

Figure 1. RS-232/ARINC 429 CONFIG Page

1. Using the large FMS knob, select the RS-232/ARINC 429 CONFIG page in the GIA Page Group (See Figure 1).
2. Press the small FMS knob to activate the cursor and highlight the SELECT UNIT field. Select GIA2 and press the ENT key.
3. Use the FMS knob to change RS-232 CHNL 7 input and output to GMA1347 #2 and press the ENT key.

Configure GMA 1347 #1 on the PFD:

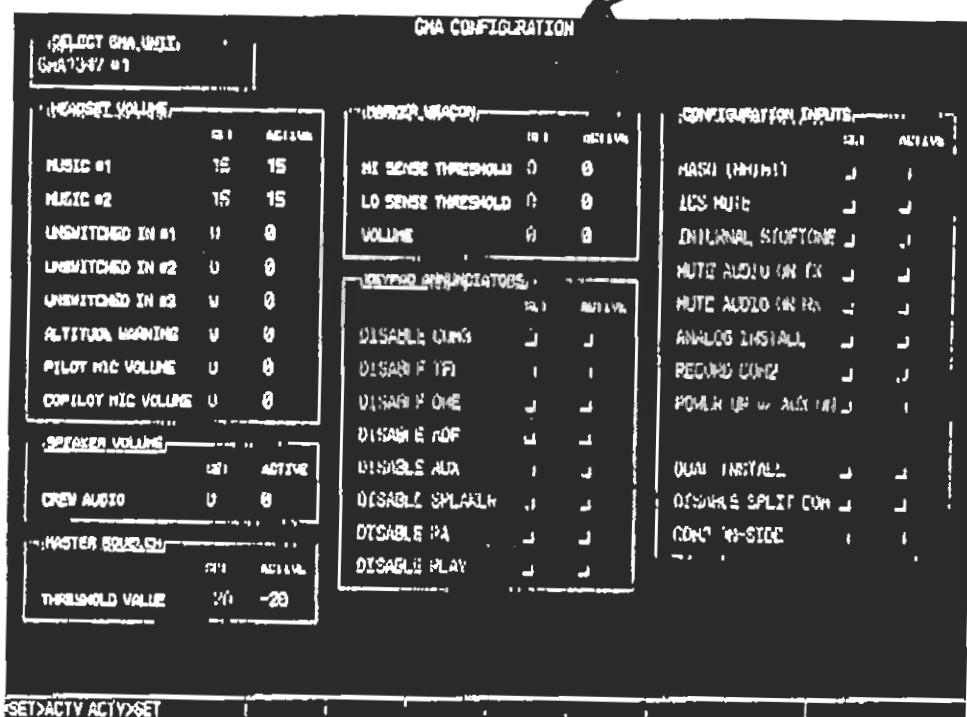


Figure 2. GMA 1347 #1 CONFIGURATION Page

1. Using the large FMS knob select the GMA CONFIGURATION page (See Figure 2).
2. Press the small FMS knob to activate the cursor and highlight DISABLE COM3. Press the ENT key to enable COM3 (both the SET and ACTIVE indicators should be black).
3. Press the small FMS knob to activate the cursor and highlight DISABLE TEL. Press the ENT key to enable TEL (both the SET and ACTIVE indicators should be black).

NOTE

If TEL interface is enabled and announced in flight with GMA 1347 software version 2.07 or less, COM 3 mic key can intermittently activate without pilot interaction.

4. Press the small FMS knob to activate the cursor and highlight DISABLE AUX. Press the ENT key to enable AUX (both SET and ACTIVE indicators should be black).
5. Press the small FMS knob to activate the cursor and highlight DUAL INSTALL. Press the ENT key to enable DUAL INSTALL (both SET and ACTIVE indicators should be green).

Configure GMA 1347 #2 on the PFD:

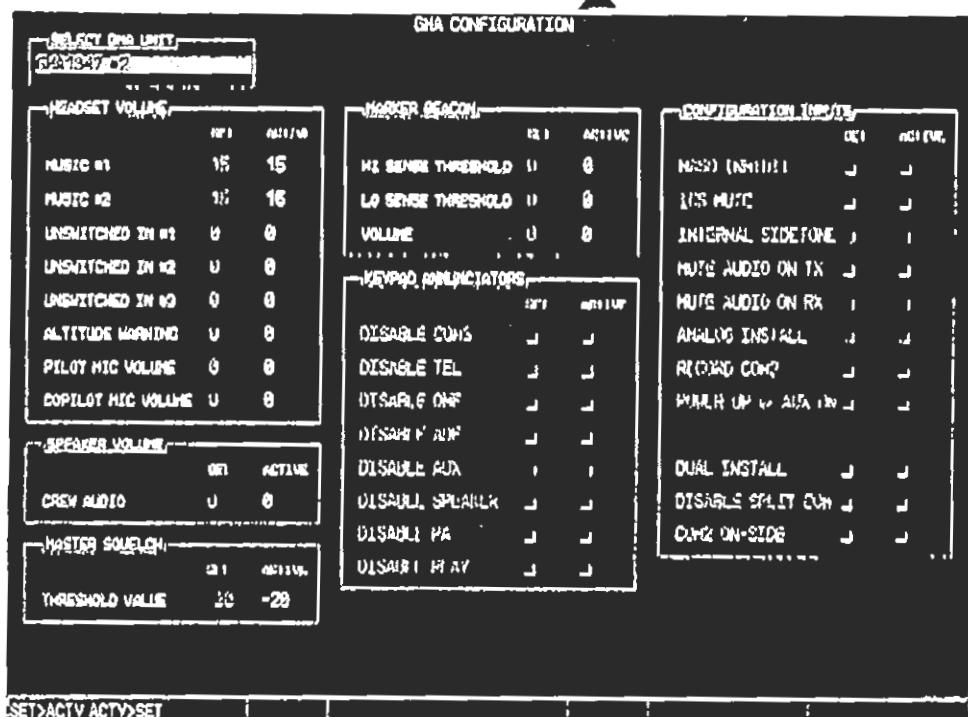


Figure 3. GMA 1347 #2 CONFIGURATION Page

1. Use the FMS knob to select GMA1347 #2 in the SELECT GMA UNIT field and press the ENT key.
2. Ensure all configuration settings for GMA 1347 #2 are identical to the GMA 1347 #1 configurations settings (See Figure 2), with the following exceptions:
 - a. Press the small FMS knob to activate the cursor and highlight DISABLE SPEAKER. Press the ENT key to disable SPEAKER (both SET and ACTIVE indicators should be green).
 - b. Press the small FMS knob to activate the cursor and highlight COM2 ON-SIDE. Press the ENT key to enable COM2 ON-SIDE (both SET and ACTIVE indicators should be green).

NOTE

If all other configuration settings are not identical, please configure accordingly.

TESTING PROCEDURE

Press each button, listed in the tables below, on the GMA 1347's front panel and verify the desired buttons are enabled or disabled. Pressing an enabled key activates the corresponding channel and illuminates the associated triangular annunciator.

GMA 1347 #1	
Key	Enabled/Disabled
COM 3	Enabled
TEL	Enabled
DME	Disabled
ADF	Disabled
AUX	Enabled
Speaker	Enabled
PA	Disabled
Play	Disabled

GMA 1347 #2	
Key	Enabled/Disabled
COM 3	Enabled
TEL	Enabled
DME	Disabled
ADF	Disabled
AUX	Enabled
Speaker	Disabled
PA	Disabled
Play	Disabled

Perform a ramp test radio check by exercising the installed transceivers, microphone, microphone key and audio over the headphones and speaker for each audio panel
(NOTE: Speaker is disabled on GMA 1347 #2).

1. Verify the Pilot is capable of transmitting on all transceivers and has priority on COM1.
2. Verify the Co-Pilot is capable of transmitting on all transceivers and has priority on COM2.
3. Verify the Co-Pilot and Passenger are not able to transmit simultaneously.
4. Select the audio source corresponding to each installed avionics unit (i.e. NAV1, NAV2, COM1, COM2) and check for audio over the headsets.
5. Press the SPKR key and verify that the selected audio is heard over the speaker (NOTE: Speaker is disabled on GMA 1347 #2).
6. Verify the reversionary button on GMA 1347 #2 is not operational.